

#### IV. REMARKS

The basic idea of the present invention is to make it possible to measure the antenna matching in the device by measuring the power reflected from the antenna (page 7, line 21 to 23), by measuring the distance to an object close to the antenna (page 12, lines 29 to 32), or by examining the position of the keypad cover of a mobile communication device (page 13, lines 28 to 38). Thus, the invention is based on the idea that if the antenna matching is poor, less power is radiated from the antenna and, in a corresponding manner, more power is returned. Because the quality of the antenna matching may vary to a great extent due to external factors, the invention provides a possibility to match the antenna with the respective environment in such a manner that as great a portion of the power generated by the driving electronics of the antenna as possible is made to radiate from the antenna. This, e.g., reduces the power consumption of the device (page 4, lines 20 to 31).

Sroka discusses antenna matching by using the reflection coefficient to determine the reactance of the coupler (column 4, lines 15 to 33). The reflection coefficient is calculated by dividing the signal strength reflected from the antenna by the signal strength input in the antenna. As the Examiner admits, Sroka fails to disclose distance measurement.

According to Leyten, in conventional devices the antenna impedance and the device impedance are matched for free space conditions. However, in situations where the distance between the antenna and the disturbing object is small, this leads to a situation where the transmission loss between the device and the antenna is high (column 3, lines 49 to 54). Leyten suggests a deliberate mismatch between the antenna and the device when

examining the free space transmission. For its part, this improves the matching between the antenna and the device when there is a disturbing object close to the antenna (column 3, lines 59 to 67, and column 4, line 1). Leyten discloses, e.g., how the transmission loss between the antenna and the device changes as the function of the distance between the antenna and the disturbing object (Fig. 3).

With reference to claims 2, 4 and 12, the Examiner has rejected the claims by claiming that Leyten mentions the measurement of a distance. It is respectfully submitted that this, however, is not the case, i.e., Leyten does not mention the measurement of a distance. Leyten, however, points out, that antenna matching in relation to the device changes as the function of the distance between the antenna and the disturbing object. Leyten's idea, however, is not to measure distances in order to change the matching, nor is there even a mention of it.

Thus even if Sroka is combined with Leyten, the result is not the present invention since the recited distance measuring concept is missing. Hence the rejection of claims 2, 5, and 12 under 35 USC 103 on this combination of references should be withdrawn.

It is respectfully submitted that Terk does not disclose the use of an infrared transmitter and receiver for the measurement of a distance.

Thus adding Terk to Sroka and Leyten does not result in the invention of claim 8. Hence, its rejection under 35 USC 103 on this combination of references should be withdrawn.

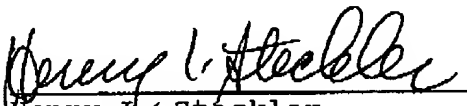
Tamura also does not disclose the measurement of a distance. Hence combining it with Sroka and Leyten does not result in the

present invention. Thus the rejection of claims 9, 14 and 15 under 35 USC 103 on this combination of references should be withdrawn.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,

  
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Dec 1, 2003  
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